



116814

ANALYTICAL REPORT

Prepared by
Lockheed Martin, Inc.

Cayuga County Groundwater Contamination Site
Auburn, NY

January, 2002

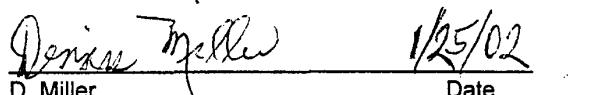
EPA Work Assignment No. 0-212
LOCKHEED MARTIN Work Order No. R1A 00212
EPA Contract No. 68-C99-223

Submitted to
A. Humphrey
EPA-ERTC


D. Bussey
Task Leader

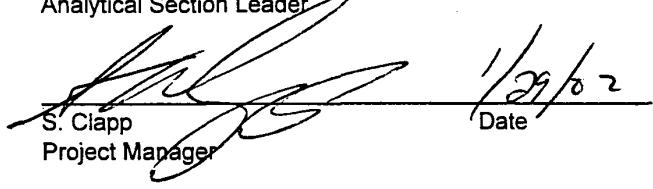
Date

Analysis by:
REAC


D. Miller
Analytical Section Leader

Date

Prepared by:
G. Karustis


S. Clapp
Project Manager

Date

Reviewed by:
J. Soroka

0212\DELVAR\0102\REPORT

R2-0002778

Table of Contents

<u>Topic</u>		<u>Page Number</u>
Introduction		Page 1
Case Narrative		Page 2
Summary of Abbreviations		Page 3
Section I		
Analytical Procedure for VOC in Water		Page 4
Results of the Analysis for VOC in Water	Table 1.1	Page 6
Results of TIC for VOC in Water	Table 1.2	Page 15
Section II		
QA/QC for VOC		Page 17
Results of the Internal Standard Areas and Surrogate Percent Recoveries for VOC in Water	Table 2.1	Page 18
Results of MS/MSD Analysis for VOC in Water	Table 2.2	Page 20
Section III		
Chains of Custody		Page 22
Appendix A Data for VOC		Page K 432 001
Appendix B Data for VOC		Page K 392 001
Appendices will be furnished on request.		

0212\DEL\VAR\0102\REPORT

R2-0002779

Introduction

REAC, in response to WA # 0-212, provided analytical support for environmental samples collected at the Cayuga County Groundwater Contamination Site located in Auburn, NY as described in the following table. This support included the QA/QC, data review and the preparation of a report summarizing the analytical methods, results, and the QA/QC results.

The samples were treated with procedures consistent with those described in SOP # 1008.

COC #*	Number of Samples	Sampling Date	Date Received	Matrix	Analysis	Laboratory	Data Package
19906	4	10/24/01	10/25/01	Water	VOC	REAC	K 392
05157	4	10/23/01	10/24/01	Water	VOC	REAC	K 392
05158	5	10/25/01	10/26/01	Water	VOC	REAC	K 392
05159	10	11/6/01	11/7/01	Water	VOC	REAC	K 392
05160	3	11/16/01	11/17/01	Water	VOC	REAC	K 432
05161	4	11/13/01	11/14/01	Water	VOC	REAC	K 432

* COC # denotes Chain of Custody number

Case Narrative

The data in this report have been validated to two significant figures. Any other representation of the data is the responsibility of the user.

VOC in Water Package K 432

The acceptable QC limits were exceeded for the relative standard deviation for 1,2-dibromo-3-chloropropane (31%) in the initial calibration of 11/17/01. The data are not affected because this analyte was not detected in the associated samples.

The acceptable QC limits were exceeded for the percent difference for dichlorodifluoromethane (27%), chloromethane (44%), vinyl chloride (52%), bromomethane (28%), chloroethane (39%), trichlorofluoromethane (40%), naphthalene (28%) and 1,2,3-trichlorobenzene (30%) in the continuing calibration check standard of 11/14/01. The data are affected as follows:

The values for vinyl chloride in samples 01953 A, 01954 A,B,C, 01955 A,B,C and 01956 A,B,C should be regarded as estimated.

VOC in Water Package K 392

The trip blank, sample 01934 A, contained 2.9 µg/L acetone. The data are not affected because acetone was not detected in the associated samples.

The acceptable QC limits were exceeded for the percent difference for bromomethane (32%) and acetone (45%) in the continuing calibration check standard of 10/25/01. The data for acetone in sample 01934 A should be regarded as estimated.

The acceptable QC limits were exceeded for the percent difference for chloromethane (54%), vinyl chloride (68%), bromomethane (29%), chloroethane (45%), trichlorofluoromethane (36%) and acetone (67%) in the continuing calibration check standard of 11/7/01. The data are affected as follows:

The values for chloromethane, vinyl chloride and acetone in samples 01943 A, 01949 A,B,C,D, 01950 A,B,C,D, 01945 A,B,C,D, 01947 A,B,C,D, 01948 A,B,C,D, 01952 A,B,C,D and 01944 A,B,C,D should be regarded as estimated

The internal standard/surrogate mix used for the analysis of samples 01934 A, 01935 A,B,C,D, 01936 A,B,C,D and 01937 A,B,C,D was one day beyond its expiration date. The data are not affected because all internal standard areas and surrogate percent recoveries were within the acceptable QC limits.

Summary of Abbreviations

AA	Atomic Absorption				
B	The analyte was found in the blank				
BFB	Bromofluorobenzene				
C	Centigrade				
cont.	Continued				
D	(Surrogate Table) this value is from a diluted sample and was not calculated (Result Table) this result was obtained from a diluted sample				
Dioxin and/or					
PCDD and PCDF	denotes Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans				
CLP	Contract Laboratory Protocol				
COC	Chain of Custody				
CONC	Concentration				
CRDL	Contract Required Detection Limit				
CRQL	Contract Required Quantitation Limit				
DFTPP	Decafluorotriphenylphosphine				
DL	Detection Limit				
E	The value is greater than the highest linear standard and is estimated				
EMPC	Estimated maximum possible concentration				
ICAP	Inductively Coupled Argon Plasma				
ISTD	Internal Standard				
J	The value is below the method detection limit and is estimated				
LCS	Laboratory Control Sample				
LCSD	Laboratory Control Sample Duplicate				
MDL	Method Detection Limit				
MI	Matrix Interference				
MS (BS)	Matrix Spike (Blank Spike)				
MSD (BSD)	Matrix Spike Duplicate (Blank Spike Duplicate)				
MW	Molecular Weight				
NA	either Not Applicable or Not Available				
NC	Not Calculated				
NR	Not Requested				
NS	Not Spiked				
% D	Percent Difference				
% REC	Percent Recovery				
PPB	Parts per billion				
PPBV	Parts per billion by volume				
PPMV	Parts per million by volume				
PQL	Practical Quantitation Limit				
QA/QC	Quality Assurance/Quality Control				
QL	Quantitation Limit				
RPD	Relative Percent Difference				
RSD	Relative Standard Deviation				
SIM	Selected Ion Monitoring				
TCLP	Toxic Characteristics Leaching Procedure				
U	Denotes not detected				
W	Weathered analyte; Aroclor pattern displays a degradation of earlier eluting peaks				
m^3	cubic meter	kg	kilogram	μ g	microgram
L	liter	g	gram	pg	picogram
mL	milliliter	mg	milligram	ng	nanogram
μ L	microliter				
*	denotes a value that exceeds the acceptable QC limit				
	Abbreviations that are specific to a particular table are explained in footnotes on that table				

Revision 7/26/0

Analytical Procedure for VOC in Water

A modified 524.2 method for the analysis of Volatile Organic Compounds in water was used. Samples were purged, trapped, and desorbed to a GC/MS system. Prior to purging, the samples were spiked with a three component surrogate mixture consisting of toluene-d₈, 4-bromofluorobenzene and 1,2-dichloroethane-d₄, and a three component internal standard mixture consisting of bromochloromethane, 1,4-difluorobenzene, and chlorobenzene-d₅.

The purge and trap unit consisted of: A Tekmar concentrator (3000 series) equipped with an Archon autosampler (Dynateck Corp.) and a VOCARB 3000 trap (Supelco).

The purge and trap instrument conditions were:

Purge	10 min at 35° C
Dry Purge	2 min at 35° C
Desorb Preheat	245° C
Desorb	4 min at 250° C
Purge Flow Rate	40 mL/min
Bake	10 min at 260° C

A Hewlett Packard 5973 GC/MSD equipped with an HP Chem Station data system was used to analyze the data.

The instrument conditions were:

Column:	30 meter x 0.25 mm ID, RTx-Volatiles (Restek Corp.) column with 3.0 µm film thickness.
Temperature:	4 min at 40° C 9° C/min to 165° C, hold for 2 min. 12° C/min to 220° C, hold for 7 min.
Flow Rate	Helium at 1.0 mL/min.
Mass Spectrometer:	Electron Impact Ionization at a nominal electron energy of 70 electron volts, scanning from 35-350 amu at one scan/sec.

Computer: Preprogrammed to plot Extracted Ion Current Profile (EICP); capable of integrating ions and plotting abundances vs time or scan number. A library search (NBS-Wiley) for tentatively identified compounds was performed on samples.

The GC/MS system was calibrated using 6 VOC standards at 5, 20, 50, 100, 150, and 200 µg/L. (Exception was acetone, calibrated using 5 VOC standards-20, 50, 100, 150 and 200 µg/L) Before analysis each day, the system was tuned with 50-ng BFB and passed a continuing calibration check when analyzing a 50 µg/L standard mixture in which the responses were evaluated by comparison to the average responses of the calibration curve.

The results are in Table 1.1; the tentatively identified compounds are listed in Table 1.2.

The concentrations of the analytes were calculated using the following equation:

$$C_u = \frac{A_x \times I_s \times D}{A_{is} \times RF \text{ (or } RF_{ave})}$$

where

C_u	= Concentration of target analyte ($\mu\text{g/L}$)
A_x	= Area of the target analyte
I_s	= Concentration of specific internal standard ($\mu\text{g/L}$)
A_{is}	= Area of the specific internal standard
RF	= Response Factor
RF_{ave}	= average Response Factor
D	= Dilution factor

The average Response Factor is used when a sample is associated with an initial calibration curve. The Response Factor is used when a sample is associated with a continuing calibration curve.

Response Factor calculation:

The response factor (RF) for each specific analyte is quantitated based on the area response from the continuing calibration check as follows:

$$RF = \frac{A_c \times I_b}{A_{is} \times I_c}$$

where,

RF	= Response factor for a specific analyte
A_c	= Area of the analyte in the standard
I_b	= Concentration of the specific internal standard
A_{is}	= Area of the specific internal standard
I_c	= Concentration of the analyte in the standard

$$RF_{ave} = \frac{RF_1 + \dots + RF_n}{n}$$

and

n = number of Samples

Revision of 06/25/01

0212\DEL\VAR\0102\REPORT

Table 1.1 Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample # :	Water blank.111401	01953 A Trip blank	01954 A,B,C EPA-1 Drums (Purge)	01955 A,B,C EPA-3 Drums (Purge)	01956 A,B,C EPA-6 Drums (Purge)
Location :	BV4179.D	BV4180.D	BV4181.D	BV4182.D	BV4183.D
File :	1	1	1	1	1
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l
Dichlorodifluoromethane	U	3.0	U	3.0	U
Chloromethane	U	1.0	U	1.0	U
Vinyl Chloride	U	1.5	U	1.5	U
Bromomethane	U	2.0	U	2.0	U
Chloroethane	U	1.0	U	1.0	U
Trichlorofluoromethane	U	2.3	U	2.3	U
Acetone	U	8.0	U	240	8.0
1,1-Dichloroethene	U	1.5	U	1.5	U
Methylene Chloride	U	1.0	U	1.0	U
Carbon Disulfide	U	1.1	U	1.1	U
Methyl-t-butyl Ether	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	U	1.0	U	1.0	U
1,1-Dichloroethane	U	1.0	U	1.0	U
2-Butanone	U	4.0	U	4.0	U
2,2-Dichloropropane	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	U	1.0	U	1.2	U
Chloroform	U	1.0	U	1.0	U
1,1-Dichloropropene	U	1.3	U	1.3	U
1,2-Dichloroethane	U	1.0	U	1.0	U
1,1,1-Trichloroethane	U	1.1	U	1.1	U
Carbon Tetrachloride	U	1.4	U	1.4	U
Benzene	U	1.0	U	1.0	U
Trichloroethene	U	1.0	U	1.0	U
1,2-Dichloropropane	U	1.0	U	1.0	U
Bromodichloromethane	U	1.0	U	1.0	U
Dibromomethane	U	1.0	U	1.0	U
cis-1,3-Dichloropropene	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	U	1.0	U	1.0	U
1,1,2-Trichloroethane	U	1.0	U	1.0	U
1,3-Dichloropropane	U	1.0	U	1.0	U
Dibromochloromethane	U	1.0	U	1.0	U
1,2-Dibromoethane	U	1.0	U	1.0	U
Bromoform	U	1.0	U	1.0	U
4-Methyl-2-Pentanone	U	2.0	U	2.0	U
Toluene	U	1.0	U	1.0	U
2-Hexanone	U	2.0	U	2.0	U
Tetrachloroethene	U	1.1	U	1.1	U
Chlorobenzene	U	1.0	U	1.0	U
1,1,1,2-Tetrachloroethane	U	1.0	U	1.0	U
Ethylbenzene	U	1.0	U	1.0	U
p&m-Xylene	U	1.1	U	1.3	U
o-Xylene	U	1.0	U	1.0	U
Styrene	U	1.0	U	1.0	U
Isopropylbenzene	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0	U
1,2,3-Trichloropropane	U	1.0	U	1.0	U
n-Propylbenzene	U	1.0	U	1.0	U
Bromobenzene	U	1.0	U	1.0	U
1,3,5-Trimethylbenzene	U	1.0	U	1.0	U
2-Chlorotoluene	U	1.0	U	1.0	U
4-Chlorotoluene	U	1.0	U	1.0	U
tert-Butylbenzene	U	1.0	U	1.0	U
1,2,4-Trimethylbenzene	U	1.0	U	1.0	U
sec-Butylbenzene	U	1.0	U	1.0	U
p-Isopropyltoluene	U	1.0	U	1.0	U
1,3-Dichlorobenzene	U	1.0	U	1.0	U
1,4-Dichlorobenzene	U	1.0	U	1.0	U
n-Butylbenzene	U	1.0	U	1.0	U
1,2-Dichlorobenzene	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0	U
1,2,4-Trichlorobenzene	U	1.0	U	1.0	U
Hexachlorobutadiene	U	1.2	U	1.2	U
Naphthalene	U	1.0	U	1.0	U
1,2,3-Trichlorobenzene	U	1.0	U	1.0	U

Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample # :	Water blank 111699	01957 A Trip blank	01958 A,B,C EPA-8 (WT)	01959 A,B,C EPA-8 Drums (Drill)
Location :				BV4262.D
File :	BV4257.D	BV4258.D	BV4259.D	
Dil. Fact. :	1	1	1	1
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l
Dichlorodifluoromethane	U	3.0	U	3.0
Chloromethane	U	1.0	U	1.0
Vinyl Chloride	U	1.5	U	1.5
Bromomethane	U	2.0	U	2.0
Chloroethane	U	1.0	U	1.0
Trichlorodifluoromethane	U	2.3	U	2.3
Acetone	U	8.0	U	8.0
1,1-Dichloroethene	U	1.5	U	1.5
Methylene Chloride	U	1.0	U	1.0
Carbon Disulfide	U	1.1	U	1.1
Methyl-t-butyl Ether	U	1.0	U	1.0
trans-1,2-Dichloroethene	U	1.0	U	1.0
1,1-Dichloroethane	U	1.0	U	1.0
2-Butanone	U	4.0	U	4.0
2,2-Dichloropropane	U	1.0	U	1.0
cis-1,2-Dichloroethene	U	1.0	U	1.0
Chloroform	U	1.0	U	1.0
1,1-Dichloropropene	U	1.3	U	1.3
1,2-Dichloroethane	U	1.0	U	1.0
1,1,1-Trichloroethane	U	1.1	U	1.1
Carbon Tetrachloride	U	1.4	U	1.4
Benzene	U	1.0	U	1.0
Trichloroethene	U	1.0	U	1.0
1,2-Dichloropropane	U	1.0	U	1.0
Bromodichloromethane	U	1.0	U	1.0
Dibromomethane	U	1.0	U	1.0
cis-1,3-Dichloropropene	U	1.0	U	1.0
trans-1,3-Dichloropropene	U	1.0	U	1.0
1,1,2-Trichloroethane	U	1.0	U	1.0
1,3-Dichloropropane	U	1.0	U	1.0
Dibromochloromethane	U	1.0	U	1.0
1,2-Dibromoethane	U	1.0	U	1.0
Bromoform	U	1.0	U	1.0
4-Methyl-2-Pentanone	U	2.0	U	2.0
Toluene	U	1.0	U	1.0
2-Hexanone	U	2.0	U	2.0
Tetrachloroethene	U	1.1	U	1.1
Chlorobenzene	U	1.0	U	1.0
1,1,2-Tetrachloroethane	U	1.0	U	1.0
Ethylbenzene	U	1.0	U	1.0
p&m-Xylene	U	1.1	U	1.1
o-Xylene	U	1.0	U	1.0
Styrene	U	1.0	U	1.0
Isopropylbenzene	U	1.0	U	1.0
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0
1,2,3-Trichloropropane	U	1.0	U	1.0
n-Propylbenzene	U	1.0	U	1.0
Bromobenzene	U	1.0	U	1.0
1,3,5-Trimethylbenzene	U	1.0	U	1.0
2-Chlorotoluene	U	1.0	U	1.0
4-Chlorotoluene	U	1.0	U	1.0
tert-Butylbenzene	U	1.0	U	1.0
1,2,4-Trimethylbenzene	U	1.0	U	1.0
sec-Butylbenzene	U	1.0	U	1.0
p-Isopropyltoluene	U	1.0	U	1.0
1,3-Dichlorobenzene	U	1.0	U	1.0
1,4-Dichlorobenzene	U	1.0	U	1.0
n-Butylbenzene	U	1.0	U	1.0
1,2-Dichlorobenzene	U	1.0	U	1.0
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0
1,2,4-Trichlorobenzene	U	1.0	U	1.0
Hexachlorobutadiene	U	1.2	U	1.2
Naphthalene	U	1.0	U	1.0
1,2,3-Trichlorobenzene	U	1.0	U	1.0

Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample # :	Water blank 102401		01930 A Trip blank		01931 A,B,C,D EPA-1 Int#1		01932 A,B,C,D EPA-1 Int#5		01933 A,B,C,D EPA-1 Int#6	
Location :	BV4045.D 1		BV4046.D 1		BV4047.D 1		BV4048.D 1		BV4051.D 1	
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l
Dichlorodifluoromethane	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
Chloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Vinyl Chloride	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5
Bromomethane	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Chloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Trichlorofluoromethane	U	2.3	U	2.3	U	2.3	U	2.3	U	2.3
Acetone	U	8.0	U	8.0	U	8.0	U	8.0	U	8.0
1,1-Dichloroethene	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5
Methylene Chloride	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Carbon Disulfide	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Methyl-t-butyl Ether	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
trans-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Butanone	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0
2,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
cis-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Chloroform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1-Dichloropropene	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1,2-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,1-Trichloroethane	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Carbon Tetrachloride	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4
Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Trichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromodichloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Dibromomethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
cis-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
trans-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,2-Trichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Dibromochloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dibromoethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
4-Methyl-2-Pentanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Toluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Hexanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Tetrachloroethene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Chlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,1,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Ethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
p&m-Xylene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Isopropylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,3-Trichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
n-Propylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
4-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
tert-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
sec-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
p-Isopropyltoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,4-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
n-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,4-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Hexachlorobutadiene	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2
Naphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,3-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0

**Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site**

Sample # :	Wblk102501	01934 A trip blk		01935 A,B,C,D EPA-1 interval #7		01936 A,B,C,D EPA-1 Int #8		01937 A,B,C,D EPA-3 interval #2			
Location :		BV4058.D	1	BV4059.D	1	BV4060.D	1	BV4061.D	1	BV4062.D	1
File Dil. Fact. :											
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	
Dichlorodifluoromethane	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	
Chloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Vinyl Chloride	U	1.5	U	1.5	U	1.5	6.6	1.5	U	1.5	
Bromomethane	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	
Chloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Trichlorofluoromethane	U	2.3	U	2.3	U	2.3	U	2.3	U	2.3	
Acetone	U	8.0	2.9	J	8.0	8.0	U	8.0	U	8.0	
1,1-Dichloroethene	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	
Methylene Chloride	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Carbon Disulfide	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	
Methyl-t-butyl Ether	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
trans-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,1-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
2-Butanone	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	
2,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
cis-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	53	1.0	U	1.0	
Chloroform	U	1.0	U	1.0	U	1.0	1.1	1.0	U	1.0	
1,1-Dichloropropene	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	
1,2-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,1,1-Trichloroethane	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	
Carbon Tetrachloride	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	
Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Trichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Bromodichloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Dibromomethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
cis-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
trans-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,1,2-Trichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,3-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Dibromo-chloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2-Dibromoethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
4-Methyl-2-Pentanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	
Toluene	U	1.0	U	1.0	U	1.0	U	1.0	3.2	1.0	
2-Hexanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	
Tetrachloroethene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	
Chlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,1,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Ethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
p&m-Xylene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	
o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Isopropylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2,3-Trichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
n-Propylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Bromobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
2-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
4-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
tert-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
sec-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
p-Isopropyltoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,3-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,4-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
n-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2,4-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
Hexachlorobutadiene	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	
Naphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	
1,2,3-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	

**Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site**

Sample # :	Water blank	102901	01938 A Trip blank	01939 A,B,C,D EPA-6 Int #8	01940 A,B,C,D EPA-6 Int #9	01941 A,B,C,D EPA-6 Int #9 dup.				
File :	BV4103.D	1	BV4104.D	1	BV4105.D	1	BV4106.D	1	BV4107.D	1
Dil. Fact. :										
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l
Dichlorodifluoromethane	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
Chloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Vinyl Chloride	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5
Bromomethane	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Chloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Trichlorofluoromethane	U	2.3	U	2.3	U	2.3	U	2.3	U	2.3
Acetone	U	8.0	U	8.0	U	8.0	U	8.0	U	8.0
1,1-Dichloroethene	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5
Methylene Chloride	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Carbon Disulfide	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Methyl-t-butyl Ether	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
trans-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Butanone	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0
2,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
cis-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Chloroform	U	1.0	U	1.0	1	1.0	3.5	1.0	3.5	1.0
1,1-Dichloropropene	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1,2-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,1-Trichloroethane	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Carbon Tetrachloride	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4
Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Trichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromodichloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Dibromomethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
cis-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
trans-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,2-Trichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Dibromochloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dibromoethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
4-Methyl-2-Pentanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Toluene	U	1.0	U	1.0	3.7	1.0	2.3	1.0	2.5	1.0
2-Hexanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Tetrachloroethene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Chlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,1,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Ethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
p&m-Xylene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Isopropylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,3-Trichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
n-Propylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
4-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
tert-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
sec-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
p-Isopropyltoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,4-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
n-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,4-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Hexachlorobutadiene	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2
Naphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,3-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0

Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample # :	Water blank	01942 A,B,C,D		
Location :	102999	EPA-6 Int #10		
File :	BV4116.D	BV4117.D		
Dil. Fact. :	1	1		
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l
Dichlorodifluoromethane	U	3.0	U	3.0
Chloromethane	U	1.0	U	1.0
Vinyl Chloride	U	1.5	U	1.5
Bromomethane	U	2.0	U	2.0
Chloroethane	U	1.0	U	1.0
Trichlorofluoromethane	U	2.3	U	2.3
Acetone	U	8.0	U	8.0
1,1-Dichloroethene	U	1.5	U	1.5
Methylene Chloride	U	1.0	U	1.0
Carbon Disulfide	U	1.1	U	1.1
Methyl-t-butyl Ether	U	1.0	U	1.0
trans-1,2-Dichloroethene	U	1.0	U	1.0
1,1-Dichloroethane	U	1.0	U	1.0
2-Butanone	U	4.0	U	4.0
2,2-Dichloropropane	U	1.0	U	1.0
cis-1,2-Dichloroethene	U	1.0	U	1.0
Chloroform	U	1.0	U	1.0
1,1-Dichloropropene	U	1.3	U	1.3
1,2-Dichloroethane	U	1.0	U	1.0
1,1,1-Trichloroethane	U	1.1	U	1.1
Carbon Tetrachloride	U	1.4	U	1.4
Benzene	U	1.0	U	1.0
Trichloroethene	U	1.0	U	1.0
1,2-Dichloropropane	U	1.0	U	1.0
Bromodichloromethane	U	1.0	U	1.0
Dibromomethane	U	1.0	U	1.0
cis-1,3-Dichloropropene	U	1.0	U	1.0
trans-1,3-Dichloropropene	U	1.0	U	1.0
1,1,2-Trichloroethane	U	1.0	U	1.0
1,3-Dichloropropane	U	1.0	U	1.0
Dibromochloromethane	U	1.0	U	1.0
1,2-Dibromoethane	U	1.0	U	1.0
Bromoform	U	1.0	U	1.0
4-Methyl-2-Pentanone	U	2.0	U	2.0
Toluene	U	1.0	U	1.0
2-Hexanone	U	2.0	U	2.0
Tetrachloroethene	U	1.1	U	1.1
Chlorobenzene	U	1.0	U	1.0
1,1,1,2-Tetrachloroethane	U	1.0	U	1.0
Ethylbenzene	U	1.0	U	1.0
p&m-Xylene	U	1.1	U	1.1
o-Xylene	U	1.0	U	1.0
Styrene	U	1.0	U	1.0
Isopropylbenzene	U	1.0	U	1.0
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0
1,2,3-Trichloropropane	U	1.0	U	1.0
n-Propylbenzene	U	1.0	U	1.0
Bromobenzene	U	1.0	U	1.0
1,3,5-Trimethylbenzene	U	1.0	U	1.0
2-Chlorotoluene	U	1.0	U	1.0
4-Chlorotoluene	U	1.0	U	1.0
tert-Butylbenzene	U	1.0	U	1.0
1,2,4-Trimethylbenzene	U	1.0	U	1.0
sec-Butylbenzene	U	1.0	U	1.0
p-Isopropyltoluene	U	1.0	U	1.0
1,3-Dichlorobenzene	U	1.0	U	1.0
1,4-Dichlorobenzene	U	1.0	U	1.0
n-Butylbenzene	U	1.0	U	1.0
1,2-Dichlorobenzene	U	1.0	U	1.0
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0
1,2,4-Trichlorobenzene	U	1.0	U	1.0
Hexachlorobutadiene	U	1.2	U	1.2
Naphthalene	U	1.0	U	1.0
1,2,3-Trichlorobenzene	U	1.0	U	1.0

Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample # :		Water blank 110701	01946 A,B,C,D EPA-1(TD2)	01951 A,B,C,D EPA-6(WT)
File :	BV4149.D		BV4150.D	BV4153.D
Dil. Fact. :	1		1	1
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l
Dichlorodifluoromethane	U	3.0	U	3.0
Chloromethane	U	1.0	U	1.0
Vinyl Chloride	U	1.5	U	1.5
Bromomethane	U	2.0	U	2.0
Chloroethane	U	1.0	U	1.0
Trichlorofluoromethane	U	2.3	U	2.3
Acetone	U	8.0	U	8.0
1,1-Dichloroethene	U	1.5	U	1.5
Methylene Chloride	U	1.0	U	1.0
Carbon Disulfide	U	1.1	U	1.1
Methyl-t-butyl Ether	U	1.0	U	1.0
trans-1,2-Dichloroethene	U	1.0	U	1.0
1,1-Dichloroethane	U	1.0	U	1.0
2-Butanone	U	4.0	U	4.0
2,2-Dichloropropane	U	1.0	U	1.0
cis-1,2-Dichloroethene	U	1.0	U	1.0
Chloroform	U	1.0	U	1.0
1,1-Dichloropropene	U	1.3	U	1.3
1,2-Dichloroethane	U	1.0	U	1.0
1,1,1-Trichloroethane	U	1.1	U	1.1
Carbon Tetrachloride	U	1.4	U	1.4
Benzene	U	1.0	U	1.0
Trichloroethene	U	1.0	U	1.0
1,2-Dichloropropane	U	1.0	U	1.0
Bromodichloromethane	U	1.0	U	1.0
Dibromomethane	U	1.0	U	1.0
cis-1,3-Dichloropropene	U	1.0	U	1.0
trans-1,3-Dichloropropene	U	1.0	U	1.0
1,1,2-Trichloroethane	U	1.0	U	1.0
1,3-Dichloropropane	U	1.0	U	1.0
Dibromochloromethane	U	1.0	U	1.0
1,2-Dibromoethane	U	1.0	U	1.0
Bromoform	U	1.0	U	1.0
4-Methyl-2-Pentanone	U	2.0	U	2.0
Toluene	U	1.0	U	1.0
2-Hexanone	U	2.0	U	2.0
Tetrachloroethene	U	1.1	U	1.1
Chlorobenzene	U	1.0	U	1.0
1,1,2-Tetrachloroethane	U	1.0	U	1.0
Ethylbenzene	U	1.0	U	1.0
p&m-Xylene	U	1.1	U	1.1
o-Xylene	U	1.0	U	1.0
Styrene	U	1.0	U	1.0
Isopropylbenzene	U	1.0	U	1.0
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0
1,2,3-Trichloropropene	U	1.0	U	1.0
n-Propylbenzene	U	1.0	U	1.0
Bromobenzene	U	1.0	U	1.0
1,3,5-Trimethylbenzene	U	1.0	U	1.0
2-Chlorotoluene	U	1.0	U	1.0
4-Chlorotoluene	U	1.0	U	1.0
tert-Butylbenzene	U	1.0	U	1.0
1,2,4-Trimethylbenzene	U	1.0	U	1.0
sec-Butylbenzene	U	1.0	U	1.0
p-Isopropyltoluene	U	1.0	U	1.0
1,3-Dichlorobenzene	U	1.0	U	1.0
1,4-Dichlorobenzene	U	1.0	U	1.0
n-Butylbenzene	U	1.0	U	1.0
1,2-Dichlorobenzene	U	1.0	U	1.0
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0
1,2,4-Trichlorobenzene	U	1.0	U	1.0
Hexachlorobutadiene	U	1.2	U	1.2
Naphthalene	U	1.0	U	1.0
1,2,3-Trichlorobenzene	U	1.0	U	1.0

**Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site**

Sample # : Location :	Water blank 110701-2		01943 A Trip blank		01949 A,B,C,D Bailer blank		01950 A,B,C,D Potable source		01945 A,B,C,D EPA-1(TD)	
File : Dil. Fact. :	BV4163.D 1		BV4164.D 1		BV4165.D 1		BV4166.D 1		BV4167.D 1	
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l
Dichlorodifluoromethane	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0
Chloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Vinyl Chloride	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5
Bromomethane	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Chloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Trichlorodifluoromethane	U	2.3	U	2.3	U	2.3	U	2.3	U	2.3
Acetone	U	8.0	U	8.0	U	8.0	U	8.0	U	8.0
1,1-Dichloroethene	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5
Methylene Chloride	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Carbon Disulfide	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Methyl-t-butyl Ether	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
trans-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Butanone	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0
2,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
cis-1,2-Dichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Chloroform	U	1.0	U	1.0	U	1.0	29	1.0	U	1.0
1,1-Dichloropropene	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3
1,2-Dichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,1-Trichloroethane	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Carbon Tetrachloride	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4
Benzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Trichloroethene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromodichloromethane	U	1.0	U	1.0	U	1.0	6.1	1.0	U	1.0
Dibromomethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
cis-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
trans-1,3-Dichloropropene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,2-Trichloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3-Dichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Dibromo-chloromethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dibromoethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromoform	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
4-Methyl-2-Pentanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Toluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Hexanone	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0
Tetrachloroethene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
Chlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Ethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
p&m-Xylene	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1
o-Xylene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Styrene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Isopropylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,3-Trichloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
n-Propylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Bromobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3,5-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
2-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
4-Chlorotoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
tert-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,4-Trimethylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
sec-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
p-Isopropyltoluene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,3-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,4-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
n-Butylbenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,4-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
Hexachlorobutadiene	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2
Naphthalene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0
1,2,3-Trichlorobenzene	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0

Table 1.1 (cont.) Results of the Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample # :	Water blank	01947 A,B,C,D EPA-3(WT)	01948 A,B,C,D EPA-3(TD)	01952 A,B,C,D EPA-6 (TD)	01944 A,B,C,D EPA-1(WT)
Location :	110701-2 dup.				
File :	BV4163.D	BV4168.D	BV4169.D	BV4170.D	BV4172.D
Dil. Fact. :	1	1	1	1	1
Analyte	Conc. ug/l	MDL ug/l	Conc. ug/l	MDL ug/l	Conc. ug/l
Dichlorodifluoromethane	U	3.0	U	3.0	U
Chloromethane	U	1.0	U	1.0	U
Vinyl Chloride	U	1.5	U	1.5	U
Bromomethane	U	2.0	U	2.0	U
Chloroethane	U	1.0	U	1.0	U
Trichlorofluoromethane	U	2.3	U	2.3	U
Acetone	U	8.0	U	8.0	U
1,1-Dichloroethene	U	1.5	U	1.5	U
Methylene Chloride	U	1.0	U	1.0	U
Carbon Disulfide	U	1.1	U	1.1	U
Methyl-t-butyl Ether	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	U	1.0	U	1.0	U
1,1-Dichloroethane	U	1.0	U	1.0	U
2-Butanone	U	4.0	U	4.0	U
2,2-Dichloropropane	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	U	1.0	U	1.0	U
Chloroform	U	1.0	U	1.0	U
1,1-Dichloropropene	U	1.3	U	1.3	U
1,2-Dichloroethane	U	1.0	U	1.0	U
1,1,1-Trichloroethane	U	1.1	U	1.1	U
Carbon Tetrachloride	U	1.4	U	1.4	U
Benzene	U	1.0	U	1.0	U
Trichloroethene	U	1.0	U	1.0	U
1,2-Dichloropropane	U	1.0	U	1.0	U
Bromodichloromethane	U	1.0	U	1.0	U
Dibromomethane	U	1.0	U	1.0	U
cis-1,3-Dichloropropene	U	1.0	U	1.0	U
trans-1,3-Dichloropropene	U	1.0	U	1.0	U
1,1,2-Trichloroethane	U	1.0	U	1.0	U
1,3-Dichloropropane	U	1.0	U	1.0	U
Dibromo-chloromethane	U	1.0	U	1.0	U
1,2-Dibromoethane	U	1.0	U	1.0	U
Bromoform	U	1.0	U	1.0	U
4-Methyl-2-Pentanone	U	2.0	U	2.0	U
Toluene	U	1.0	U	1.0	U
2-Hexanone	U	2.0	U	2.0	U
Tetrachloroethene	U	1.1	U	1.1	U
Chlorobenzene	U	1.0	U	1.0	U
1,1,1,2-Tetrachloroethane	U	1.0	U	1.0	U
Ethylbenzene	U	1.0	U	1.0	U
p&m-Xylene	U	1.1	U	1.1	U
o-Xylene	U	1.0	U	1.0	U
Styrene	U	1.0	U	1.0	U
Isopropylbenzene	U	1.0	U	1.0	U
1,1,2,2-Tetrachloroethane	U	1.0	U	1.0	U
1,2,3-Trichloropropane	U	1.0	U	1.0	U
n-Propylbenzene	U	1.0	U	1.0	U
Bromobenzene	U	1.0	U	1.0	U
1,3,5-Trimethylbenzene	U	1.0	U	1.0	U
2-Chlorotoluene	U	1.0	U	1.0	U
4-Chlorotoluene	U	1.0	U	1.0	U
tert-Butylbenzene	U	1.0	U	1.0	U
1,2,4-Trimethylbenzene	U	1.0	U	1.0	U
sec-Butylbenzene	U	1.0	U	1.0	U
p-Isopropyltoluene	U	1.0	U	1.0	U
1,3-Dichlorobenzene	U	1.0	U	1.0	U
1,4-Dichlorobenzene	U	1.0	U	1.0	U
n-Butylbenzene	U	1.0	U	1.0	U
1,2-Dichlorobenzene	U	1.0	U	1.0	U
1,2-Dibromo-3-chloropropane	U	1.0	U	1.0	U
1,2,4-Trichlorobenzene	U	1.0	U	1.0	U
Hexachlorobutadiene	U	1.2	U	1.2	U
Naphthalene	U	1.0	U	1.0	U
1,2,3-Trichlorobenzene	U	1.0	U	1.0	U

Table 1. 2 Results of TIC for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample ID	Compound
Water blank 111401	No Peaks Found
01953 A	No Peaks Found
01954 A,B,C	No Peaks Found
01955 A,B,C	No Peaks Found
01956 A,B,C	No Peaks Found
Water blank 111701-2	No Peaks Found
01957 A	No Peaks Found
01958 A,B,C	No Peaks Found
01959 A,B,C	No Peaks Found
Water blank 102401	No Peaks Found
01930 A	No Peaks Found
01931 A,B,C,D	No Peaks Found
01932 A,B,C,D	No Peaks Found
01933 A,B,C,D	No Peaks Found
Water blank 102501	No Peaks Found
01934 A	No Peaks Found
01935 A,B,C,D	No Peaks Found
01936 A,B,C,D	No Peaks Found
01937 A,B,C,D	No Peaks Found
Water blank 102901	No Peaks Found
01938 A	No Peaks Found
01939 A,B,C,D	No Peaks Found
01940 A,B,C,D	No Peaks Found
01941 A,B,C,D	No Peaks Found
Water blank 103001	No Peaks Found
01942 A,B,C,D	No Peaks Found
Water blank 110701	No Peaks Found
01946 A,B,C,D	No Peaks Found
01951 A,B,C,D	No Peaks Found
Water blank 110701-2 dup.	No Peaks Found
01943 A	No Peaks Found
01950 A,B,C,D	No Peaks Found
01945 A,B,C,D	No Peaks Found
01947 A,B,C,D	No Peaks Found
01948 A,B,C,D	No Peaks Found
01952 A,B,C,D	No Peaks Found
01944 A,B,C,D	No Peaks Found

Table 1.2 (cont.) Results of TIC for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample #01949 A,B,C,D Unit $\mu\text{g/L}$
LabFile# BV4165 Con. Factor 1.00

	CAS#	Compound	Q	RT	Conc
1		C4 Alkane		2.43	7
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

*Estimated Concentration (Response Factor = 1.0)

016

0212\DEL\VAR\0102\All

R2-0002795

QA/QC for VOC

Results of the Surrogate Percent Recoveries and Internal Standard Areas for VOC in Water

Each sample was spiked with a three component mixture of CLP surrogate standards consisting of toluene-d₈, 4-bromofluorobenzene and 1,2-dichloroethane-d₄. The surrogate percent recoveries, listed in Table 2.1, ranged from 89 to 114. All one hundred and forty-seven values were within the acceptable QC limits. The internal standard areas (for bromochloromethane, 1,4-difluorobenzene, and chlorobenzene-d₅) are also listed in Table 2.1. All one hundred and forty-seven areas were within the acceptable QC limits.

Results of the MS/MSD Analysis for VOC in Water

Samples 01958 A,B,C, 01932 A,B,C,D, 01942 A,B,C,D, 01946 A,B,C,D and 01951 A,B,C,D were chosen for the matrix spike/matrix spike duplicate (MS/MSD) analyses. The percent recoveries, ranging from 71 to 115, are listed in Table 2.2. All fifty values were within the acceptable QC limits. The relative percent differences, also listed in Table 2.2, ranged from 0 (zero) to 11 and all twenty-five values were within the acceptable QC limits.

Table 2.1 Results of the Internal Standard Areas and Surrogate Percent Recoveries for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

File ID	Sample No.	IS 1	IS 2	IS 3	Sur. 1	Sur. 2	Sur. 3
Cal Check Area	BV4178.D	132325	945276	546973			
BV4179.D	Water blank 111401	119827	909916	503615	99	105	95
BV4180.D	01953 A	119213	871471	484966	101	105	95
BV4181.D	01954 A,B,C	116494	842090	473096	103	104	95
BV4182.D	01955 A,B,C	114666	827067	466329	104	104	94
BV4183.D	01956 A,B,C	113043	815665	460701	104	104	94
BV4186.D	01954 A,B,C 5x	112624	800303	454663	108	104	92
Cal Check Area	BV4248.D	115098	834627	484573			
BV4257.D	Water blank 111701-2	116047	854303	465583	105	104	96
BV4258.D	01957 A	107497	786344	437978	106	102	94
BV4259.D	01958 A,B,C	104178	766324	427363	108	103	93
BV4260.D	01958 A,B,C ms	104039	787044	440440	108	101	92
BV4261.D	01958 A,B,C msd	100487	762035	427454	108	101	91
BV4262.D	01959 A,B,C	100131	742261	411027	108	103	93
Cal Check Area	BV4044.D	98911	903628	616125			
BV4045.D	Water blank 102401	95039	880862	585351	100	102	95
BV4046.D	01930 A	90196	842770	565660	102	102	93
BV4047.D	01931 A,B,C,D	90326	826425	558831	103	102	94
BV4048.D	01932 A,B,C,D	88924	811064	548465	103	102	94
BV4049.D	01932 A,B,C,D ms	88675	822245	558877	105	100	93
BV4050.D	01932 A,B,C,D msd	90273	823652	562645	105	100	92
BV4051.D	01933 A,B,C,D	88543	792627	543368	105	101	93
Cal Check Area	BV4057.D	91443	822581	594930			
BV4058.D	Water blank 102501	84009	816867	545027	98	106	94
BV4059.D	01934 A	89447	807880	547679	102	105	95
BV4060.D	01935 A,B,C,D	84228	771783	532782	100	105	94
BV4061.D	01936 A,B,C,D	86477	776659	533963	102	104	94
BV4062.D	01937 A,B,C,D	88502	800644	554276	102	104	93

IS 1 Bromochloromethane
IS 2 1,4-Difluorobenzene
IS 3 Chlorobenzene-d5

Sur. 1 1,2-Dichloroethane-d4 76 - 114
Sur. 2 Toluene-d8 88 - 110
Sur. 3 p-Bromofluorobenzene 86 - 115

Table 2.1 (cont.) Results of the Internal Standard Areas and Surrogate Percent Recoveries for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

File ID	Sample No.	IS 1	IS 2	IS 3	Sur. 1	Sur. 2	Sur. 3
Cal Check Area	BV4099.D	215802	1491210	817168			
BV4103.D	Water blank 102901	187454	1321223	694063	103	104	98
BV4104.D	01938 A	176291	1243603	659174	104	103	96
BV4105.D	01939 A,B,C,D	163637	1163755	629419	107	102	93
BV4106.D	01940 A,B,C,D	149107	1077612	586159	110	102	92
BV4107.D	01941 A,B,C,D	141145	1024344	563704	113	102	90
Cal Check Area	BV4114.D	156111	1093480	605125			
BV4116.D	Water blank 103001	146082	1016977	545107	103	103	91
BV4117.D	01942 A,B,C,D	140046	977455	530892	103	103	90
BV4118.D	01942 A,B,C,D ms	138628	979608	537221	106	101	89
BV4119.D	01942 A,B,C,D msd	137803	988574	535736	107	101	91
Cal Check Area	BV4143.D	166542	1147050	610080			
BV4149.D	Water blank 110701	156355	1109898	577308	103	102	97
BV4150.D	01946 A,B,C,D	149957	1058280	555870	105	101	96
BV4151.D	01946 A,B,C,D MS	144282	1025310	538195	108	101	94
BV4152.D	01946 A,B,C,D MSD	140129	996032	528137	111	100	92
BV4153.D	01951 A,B,C,D	131595	928801	495295	112	101	92
BV4154.D	01951 A,B,C,D MS	128313	919447	497616	113	99	91
BV4155.D	01951 A,B,C,D MSD	125461	896259	490508	114	99	90
Cal Check Area	BV4161.D	128870	915627	530006			
BV4163.D	Water blank 110701-2	118393	867478	478044	101	105	95
BV4164.D	01943 A	116672	854502	473374	102	105	95
BV4165.D	01949 A,B,C,D	114440	846871	470954	102	105	95
BV4166.D	01950 A,B,C,D	114052	839666	466882	101	105	95
BV4167.D	01945 A,B,C,D	110175	815229	456414	103	105	94
BV4168.D	01947 A,B,C,D	110760	823186	460204	103	105	94
BV4169.D	01948 A,B,C,D	116890	881868	489019	103	106	94
BV4170.D	01952 A,B,C,D	108167	819068	454904	105	106	91
BV4172.D	01944 A,B,C,D	107900	828789	460245	103	105	92

IS 1 Bromochloromethane
IS 2 1,4-Difluorobenzene
IS 3 Chlorobenzene-d5

Sur. 1 1,2-Dichloroethane-d4 76 - 114
Sur. 2 Toluene-d8 88 - 110
Sur. 3 p-Bromofluorobenzene 86 - 115

Table 2.2 Results of MS/MSD Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample ID: 01958 A,B,C

Compound Name	Sample Conc. µg/L	MS	MSD	MS Conc. µg/L	MS Conc. µg/L	MS % Rec.	MSD % Rec.	QC Limits		
		Spike Added µg/L	Spike Added µg/L					RPD	RPD	% Rec.
1,1-Dichloroethene	U	50.0	50.0	55.0	54.6	110	109	1	14	61 - 145
Benzene	U	50.0	50.0	55.8	56.6	112	113	2	11	76 - 127
Trichloroethene	U	50.0	50.0	53.1	53.4	106	107	1	14	71 - 120
Toluene	U	50.0	50.0	56.3	57.3	113	115	2	13	76 - 125
Chlorobenzene	U	50.0	50.0	54.0	54.7	108	109	1	13	75 - 130

Sample ID: 01932 A,B,C,D

Compound Name	Sample Conc. µg/L	MS	MSD	MS Conc. µg/L	MS Conc. µg/L	MS % Rec.	MSD % Rec.	QC Limits		
		Spike Added µg/L	Spike Added µg/L					RPD	RPD	% Rec.
1,1-Dichloroethene	U	50.0	50.0	43.2	47.0	86	94	8	14	61 - 145
Benzene	U	50.0	50.0	51.2	51.6	102	103	1	11	76 - 127
Trichloroethene	U	50.0	50.0	48.9	50.6	98	101	3	14	71 - 120
Toluene	1.1	50.0	50.0	52.4	52.5	103	103	0	13	76 - 125
Chlorobenzene	U	50.0	50.0	50.4	49.7	101	99	2	13	75 - 130

Sample ID: 01942 A,B,C,D

Compound Name	Sample Conc. µg/L	MS	MSD	MS Conc. µg/L	MS Conc. µg/L	MS % Rec.	MSD % Rec.	QC Limits		
		Spike Added µg/L	Spike Added µg/L					RPD	RPD	% Rec.
1,1-Dichloroethene	U	50.0	50.0	45.6	41.0	91	82	11	14	61 - 145
Benzene	U	50.0	50.0	45.3	45.8	91	92	1	11	76 - 127
Trichloroethene	U	50.0	50.0	43.9	44.6	88	89	2	14	71 - 120
Toluene	U	50.0	50.0	46.2	47.0	92	94	2	13	76 - 125
Chlorobenzene	U	50.0	50.0	44.0	44.6	88	89	1	13	75 - 130

020

0212\DELVAR\0102\All

R2-0002799

Table 2.2 (cont.) Results of MS/MSD Analysis for VOC in Water
WA # 0-212 Cayuga County Groundwater Contamination Site

Sample ID: 01946 A,B,C,D

Compound Name	Sample Conc. µg/L	MS	MSD	MS Conc. µg/L	MSD Conc. µg/L	MS % Rec.	MSD % Rec.	QC Limits		
		Spike Added µg/L	Spike Added µg/L					RPD	RPD	% Rec.
1,1-Dichloroethene	U	50.0	50.0	35.4	38.7	71	77	9	14	61 - 145
Benzene	U	50.0	50.0	47.3	48.0	95	96	2	11	76 - 127
Trichloroethene	U	50.0	50.0	45.8	46.5	92	93	2	14	71 - 120
Toluene	U	50.0	50.0	47.2	47.5	94	95	1	13	76 - 125
Chlorobenzene	U	50.0	50.0	45.5	45.2	91	90	1	13	75 - 130

Sample ID: 01951 A,B,C,D

Compound Name	Sample Conc. µg/L	MS	MSD	MS Conc. µg/L	MSD Conc. µg/L	MS % Rec.	MSD % Rec.	QC Limits		
		Spike Added µg/L	Spike Added µg/L					RPD	RPD	% Rec.
1,1-Dichloroethene	U	50.0	50.0	40.1	41.6	80	83	4	14	61 - 145
Benzene	U	50.0	50.0	46.5	48.1	93	96	3	11	76 - 127
Trichloroethene	U	50.0	50.0	44.2	45.4	88	91	3	14	71 - 120
Toluene	U	50.0	50.0	45.7	46.9	91	94	3	13	76 - 125
Chlorobenzene	U	50.0	50.0	44.0	44.7	88	89	2	13	75 - 130

021

0212\DELVAR\0102VAll

R2-0002800

REAC, Edison, NJ
(732) 321-4200
EPA Contract 68-C99-223

CHAIN OF CUSTODY RECORD

Project Name: Auburn Groundwater Contamination Site
Project Number: RIA00212
LM Contact: D. Bussey Phone: 494-4056

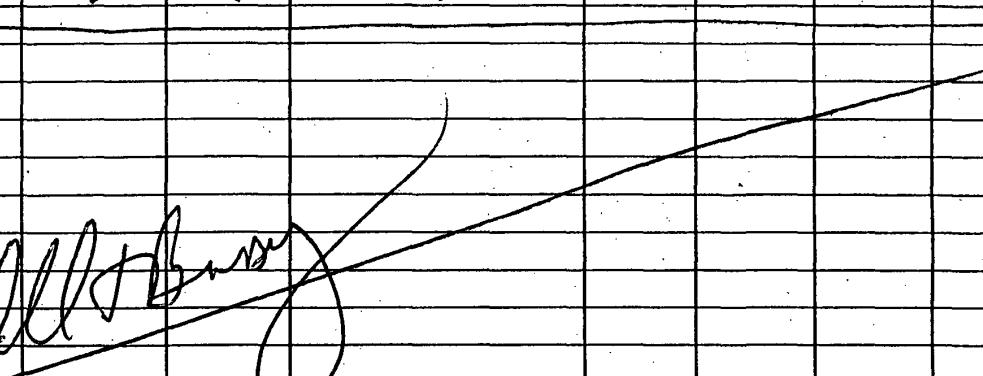
No: 19906
Sheet 01 of 01 (Do not copy)
(for addnl. samples use new form)

102501-

Sample Identification

Analyses Requested

REAC#	Sample No	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	VOCs		
257	01935 A,B,C,D	EPA-1 Interval #7 137.7 - 164'	GW	10/24/01	4	40 ml glass / 4°C	X		
258	01934 A	TRIP B LHM/LC	W		1				
259	01936 A,B,C,D	EPA-1 Interval #8 158.8 - 185.1'	GW		4				
260	01937 A,B,C,D	EPA-3 Interval #2 22.5 - 48.8'	GW		4				



022

22

Matrix

Special Instructions:

A- Air
AT-Animal Tissue
DL- Drum Liquids
DS-Drum Solids
GW- Groundwater
O- Oil
PR-Product
PT-Plant Tissue

PW- Potable Water
S- Soil
SD- Sediment
SL- Sludge
SW- Surface Water
TX-TCLP Extract
W- Water
X- Other

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #:

R2-0002801

REAC, Edison
(732) 321-4200
EPA Contract 68-C99-223

CHAIN OF CUSTODY RECORD

Project Name: Auburn Granulite Site
Project Number: R1A00212
LM Contact: D. Bussey Phone: 494-4057

No: 05157
Sheet 01 of 01(Do not copy)
(for addnl. samples use new form)

102801 -

Sample Identification

Analyses Requested

023

Matrix

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #:

A- Air	PW- Potable Water
AT-Animal Tissue	S- Soil
DL- Drum Liquids	SD- Sediment
DS- Drum Solids	SL- Sludge
GW- Groundwater	SW- Surface Water
O- Oil	TX-TCLP Extract
PR-Product	W- Water
PT-Plant Tissue	X- Other

R2-0002802

REAC, Edison, NJ
(732) 321-4200
EPA Contract 68-C99-223

CHAIN OF CUSTODY RECORD

Project Name: Auburn Groundwater Site
Project Number: RIA 00 212
LM Contact: D. Bussey Phone: 419-4-4056

No: 05158
Sheet 01 of 01 (Do not copy)
(for addnl. samples use new form)

10-26-01

Sample Identification

Analyses Requested

REAC#	Sample No	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	VOCs
307	01938 A	TRIP BLANK	W	10/25/01	1	40 ml glass / 4°C	X
308	01939 A,B,C,D	EPA-6 Interval #8 173.3 - 199.6	GW		4		
309	01940 A,B,C,D	EPA-6 Interval #9 197.3 - 223.6					
310	01941 A,B,C,D	EPA-6 Interval #9 197.3 - 223.6 DCP					
311	01942 A,B,C,D	EPA-6 Interval #10 223.6 - 249.3					

024

24

Matriky

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #:

A-Air

PW- Potable Water

AT-Animal Tissue

S- Soil

DL- Drum Liquids

SD- Sediment

DS- Drum Solids

SL- Sludge

GW-Ground

SW- Surface Wa

O-Oil

TX-TCLP.Extract

PR-Product

W- Water

R2-0002803

REAC, Edisol
(732) 321-4200
EPA Contract 68-C99-223

CHAIN OF CUSTODY RECORD

Project Name: Auburn Groundwater Contamination Site
Project Number: RIA 00212
LM Contact: D. Bussell Phone: 494-4056

No: 05159
Sheet 01 of 01 (Do not copy)
(for addnl. samples use new form)

Sample Identification

Analyses Requested

REACH#	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	VOCS		
945	01943 A	TRIP BLANK	W	11/6/01	1	40 ml glass / 4°C	X		
946	01944 A,B,C,D	EPA-1 (WT)	GW		4	3 DTB			
947	01945 A,B,C,D	EPA-1 (TD)							
948	01946 A,B,C,D	EPA-1 (TD2)							
949	01947 A,B,C,D	EPA-3 (WT)							
950	01948 A,B,C,D	EPA-3 (TD)	↓						
951	01949 A,B,C,D	Boiler Blank	W						
952	01950 A,B,C,D	Portable Source	↓						
953	01951 A,B,C,D	EPA-6 (WT)	GW		↓				
954	01952 A,B,C,D	EPA-6 (TD)	↓	↓	↓	↓	↓		

025

Matrix

Special Instructions:

A- Air
AT-Animal Tissue
DL- Drum Liquids
DS- Drum Solids
GW- Groundwater
O- Oil
PR-Product
PT-Plant Tissue

PW- Potable Water
S- Soil
SD- Sediment
SL- Sludge
SW- Surface Water
TX-TCLP Extract
W- Water
X- Other

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #:

R2-0002804

REAC, Edison, NJ
(732) 321-4200
EPA Contract 68-C99-223

CHAIN OF CUSTODY RECORD

Project Name: Auburn Groundwater Contamination Site
Project Number: RIA 00212
LM Contact: Dr. Bussey Phone: 494-4056

No: 05160
Sheet 01 of 01 (Do not copy)
(for addnl. samples use new form)

Sample Identification

Analyses Requested

026

Matrix

Special Instructions:

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #:

A- Air	PW- Potable Water
AT-Animal Tissue	S- Soil
DL- Drum Liquids	SD- Sediment
DS- Drum Solids	SL- Sludge
GW- Groundwater	SW- Surface Water
O- Oil	TX-TCLP Extract
PR-Product	W- Water
PT-Plant Tissue	X- Other

All respected dear

R2-0002805

REAC, Ediso.
(732) 321-4200
EPA Contract 68-C99-223

CHAIN OF CUSTODY RECORD

Project Name: Auburn Groundwater Contamination Site
Project Number: RI A 00212
LM Contact: D. Bussey Phone: 494-4056

No: 05161
Sheet 01 of 01 (Do not copy)
(for addnl. samples use new form)

11/19/11

Sample Identification

Analyses Requested

24

Matrix

Special Instructions:

A- Air
AT-Animal Tissue
DL- Drum Liquids
DS- Drum Solids
GW- Groundwater
O- Oil
PR-Product
PT-Plant Tissue

PW- Potable Water
 S- Soil
 SD- Sediment
 SL- Sludge
 SW- Surface Water
 TX-TCLP Extract
 W- Water
 X- Other

01954 may have low ppb conc. of Cis 1-2 DCE and vinyl chloride. Other samples should be clean.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #:

~~July 4th~~

R2-0002806